REMARKS

The Office Action dated May 2, 2007 has been received and reviewed. Prior to the present communication, claims 1-16 were pending in the subject application. All claims stand rejected. Claims 1-9, 11, and 14 have been amended herein and claims 6 and 10 have been cancelled. Accordingly, claims 1-9 and 11-16 remain pending. It is respectfully submitted that no new matter has been added by way of the present amendments. Reconsideration of the subject application is respectfully requested in view of the above amendments and the following remarks. Claims 1, 10, and 11 stand rejected under 35 U.S.C. § 101, and claims 1-16 stand rejected under 35 U.S.C. § 103(a).

Support for Claim Amendments

Each of independent claims 1, 11, and 14 have been amended herein. Support for the claim amendments may be found in the Specification, for example, at paragraphs [3100], [4200], [4300], and [6600]. As such, it is respectfully submitted that no new matter has been added by way of the present amendments to the claims.

Rejections based on 35 U.S.C. § 101

Claims 1, 10, and 11 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Applicants respectfully traverse the rejection of these claims, as hereinafter set forth. Claim 10 has been cancelled by way of the present communication and, accordingly, the rejection of this claim has been rendered moot.

In response, claim 1 has been amended to recited "computer-storage media." "When functional descriptive material is recorded on some computer-readable medium, it

becomes structurally and functionally interrelated to the medium and will be statutory in most cases since the use of technology permits the function of the descriptive material to be realized." MPEP § 2106.01. *See*, *In re Lawry*, 32 F.3d 1579, 1583-84 (Fed. Cir. 1994) (discussing patentable weight of data structure stored on a computer readable medium that increases computer efficiency); s*ee also*, *In re Warmerdam*, 33 F.3d 1354, 1360-61 (discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency). Because computer-storage media is statutory subject matter, claim 1 is believed to be in condition for allowance and such favorable action is respectfully requested.

Claim 11 has been amended, as presented hereinabove, to recite the limitation of "store" the identified optimal mapping of logical links. Storing this data is a practical application; thus, the rejection for being non-statutory is considered traversed. As such, claim 11, and the claims that depend thereform, are believed to be in condition for allowance and such favorable action is respectfully requested.

Double Patenting Rejection

Claim 6 of this application stands rejected for being in conflict with claim 7 of U.S. Patent Application No. 10/615,649 to Nucci et al. (hereinafter the "Nucci reference"). In particular, the rejection is based on 37 CFR 1.78(b) that provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required. Applicants have canceled claim 6 and as such the rejection of this claim has been rendered moot. As a result, it is requested that the statutory-double patenting rejection in the office action be withdrawn.

Rejections based on 35 U.S.C. § 103(a)

A.) Applicable Authority

The teachings or suggestions to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. MPEP § 2143; *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Recently, the Supreme Court elaborated, at pages 13-14 of *KSR*, it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references]; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the [patent application]." *KSR v. Teleflex*, No. 04-1350, 550 U.S. ___ (2007). In addition, to establish a *prima facie* case of obviousness, all the claim limitations must be taught by the prior art. MPEP § 2143.03; *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03; *In re Wilson*, 57 C.C.P.A. 1029, 1032 (1970). Further, "'[i]f an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.' *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)." MPEP § 2143.03.

B.) Obviousness Rejection Based on Doverspike et al. (U.S. Patent Application Publication 2002/0097671) in view of Nishiyama et al. (European Patent # EP950966)

Claims 1, 2, and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0097671 to Doverspike et al. (hereinafter the

"Doverspike reference") in view of European Patent EP950966 to Nishiyama et al. (hereinafter the "Nishiyama reference"). Because the Doverspike reference and the Nishiyama reference, whether taken alone or in combination, fail to teach or suggest all of the limitations of claims 1 and 2, Applicants respectfully traverse this rejection, as hereinafter set forth. Claim 10 has been cancelled by way of the present communication and, accordingly, the rejection of this claim has been rendered moot.

Claim 1, as amended hereinabove, recites "obtaining a priority order of the network node pairs, the priority order derived from network traffic carried between the network node pairs." The Office Action states that the Doverspike reference does not disclose a priority order of network node pairs for the purpose of correlating the mapping options. The Nishiyama reference does not teach this limitation. Instead, the Nishiyama reference teaches that priority is based on positional relationships of a pair of nodes, where having a higher priority is related to a node "located at the nearer position" to another node. *See* Nishiyama at col. 3, ¶ [0009]. That is, rather than creating a priority based on traffic, Nishiyama bases priority on proximity of location. Accordingly, the proposed combination teach all the limitations of independent claim 1. As a result, it is respectfully submitted that independent claim 1 is allowable for a least this reason. Further, it is respectfully submitted that dependent claim 2, is allowable based in part on the dependency from claim 1.

C.) Obviousness Rejection Based on Doverspike et al. (U.S. Patent Application Publication 2002/0097671) in view of Wolpert (U.S. Patent 6,577,601) and in further view of Nishiyama et al. (European Patent EP950966), further in view of Modiano et al. ("Survivable Routing of Logical Topologies in WDM Networks"), and further in

view of Nucci et al. ("Design of Fault-Tolerant Logical Topologies in Wavelength-Routed Optical IP Networks")

Claims 3-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Doverspike reference in view of the Nishiyama reference, in further view of U.S. Patent 6,577,601 to Wolpert (hereinafter the "Wolpert reference"), further in view of "Survivable Routing of Logical Topologies in WDM Networks" by Modiano et al. (hereinafter the "Modiano reference"), and further in view of "Design of Fault-Tolerant Logical Topologies in Wavelength-Routed Optical IP Networks" by Nucci et al. (hereinafter the "Nucci reference"). As the Examiner has failed to establish a *prima facie* case of obviousness based upon the asserted combination of references, Applicants respectfully traverse this rejection, as hereinafter set forth.

As stated above, none of the Doverspike reference, the Nishiyama reference, or the combination thereof, teach or suggest all of the limitations of independent claim 1 on which claims 3, 4, 5, 6, 7, and 9 either directly or indirectly depend. As previously mentioned, the primary references do not teach deriving the priority order from network traffic carried between network node pair. The Office Action does not assert that either the Wolpert reference, the Modiano reference, the Nucci reference, or a combination thereof, teach these claimed limitations either expressly or inherently. As such, neither the Wolpert, Modiano, nor Nucci reference cures the noted deficiencies of the Doverspike and Nishiyama references. Accordingly, the proposed combination does not meet the limitations of the claimed subject matter and as a matter of law the Examiner's rejection cannot stand. As a result, it is respectfully submitted that dependent claims 2-9 are allowable based in part on the dependency from claim 1.

D.) Obviousness Rejection Based on Armitage et al. ("Design of a Survivable WDM Photonic Network") in view of Nishiyama et al.

(European Patent EP950966), and further in view of Doverspike et al. (U.S. Patent Application Publication No. 2002/0097671)

Claims 11-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over "Design of a Survivable WDM Photonic Network" by Armitage (hereinafter the "Armitage reference") in view of the Nishiyama and Doverspike references. As the Examiner has failed to establish a *prima facie* case of obviousness based upon the asserted combination of references, Applicants respectfully traverse this rejection, as hereinafter set forth.

Similar to independent claim 1, claim 11 recites the limitations of a practical constraint module comprising a network node priority sub-module for obtaining a priority order of the network nodes derived from network traffic carried from the network nodes. As discussed above, none of the Doverspike reference, the Nishiyama reference, or the combination thereof, teach these limitations. In addition, the primary reference, Armitage, does not disclose these limitations.

The Armitage reference does not disclose, "obtaining a priority order of the network node pairs, the priority order derived from network traffic carried between the network node pairs" as stated in the Office Action.

In view of the above, it is respectfully submitted that the Armitage, Doverspike, and/or Nishiyama references, whether taken alone or in combination, fail to teach or suggest all of the limitations of claim 11. As such, it is respectfully requested that the 35 U.S.C. § 103(a) rejection of this claim be withdrawn. Each of claims 12 and 13 is believed to be in condition for allowance based in part upon dependency from claim 11, and such favorable action is respectfully requested.

CONCLUSION

For at least the reasons stated above, claims 1-16 are now in condition for allowance. Applicants respectfully request withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 816-474-6550 or jdickman@shb.com (such communication via email is herein expressly granted) – to resolve the same. It is believed that no fee is due, however, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 21-0765.

Respectfully submitted,

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